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ANNA UNIVERSITY (UNIVERSITY DEPARTMENTS)

B.E. / B.Tech / B. Arch (Full Time) - ~~END SEMESTER~~ EXAMINATIONS, APR / MAY 2025

NAME OF THE BRANCH

Semester - 8

GE5451 & TOTAL QUALITY MANAGEMENT

(Regulation 2019)

Time: 3hrs

Max. Marks: 100

CO1	Teach the need for quality, its evolution, basic concepts, contribution of quality gurus, TQM framework, Barriers and Benefits of TQM.
CO2	Explain the TQM Principles for application
CO3	Define the basics of Six Sigma and apply Traditional tools, New tools, Benchmarking and FMEA
CO4	Describe Taguchi's Quality Loss Function, Performance Measures and apply Techniques like QFD, TPM, COQ and BPR.
CO5	Illustrate and apply QMS and EMS in any organization

BL – Bloom's Taxonomy Levels

(L1-Remembering, L2-Understanding, L3-Appling, L4-Analysing, L5-Evaluating, L6-Creating)

PART- A (10x2=20Marks)

(Answer all Questions)

Q.No.	Questions	Marks	CO	BL
1	What are two key benefits of implementing TQM in an organization?	2	1	1
2	List any two dimensions of quality.	2	1	1
3	Why is the Juran Trilogy important in Total Quality Management?	2	2	2
4	Mention two ways TQM enhances customer satisfaction.	2	2	2
5	How does benchmarking help in improving business performance?	2	3	2
6	What are the key principles of Six Sigma?	2	3	1
7	Who are the members of a Quality Circle?	2	4	1
8	List four advantages of Quality Function Deployment (QFD).	2	4	1
9	What is ISO 9001, and why is it important?	2	5	2
10	Name two key elements of an EMS.	2	5	1

PART- B (5x 13=65Marks)

(Restrict to a maximum of 2 subdivisions)

Q.No.	Questions	Marks	CO	BL
11 (a)	Discuss the various dimensions of product and service quality and their significance in achieving customer satisfaction in TQM.	13	1	3
OR				
11 (b)	Explain the key benefits and barriers to implementing Total Quality Management (TQM) in an organization.	13	1	3
12 (a)	Analyze the role of the Kano Model in identifying and prioritizing customer needs. Give examples.	13	2	4
OR				
12 (b)	Discuss the impact of Deming's philosophy on modern quality management practices.	13	2	4

13 (a)	Compare traditional quality management tools with new management tools in TQM.	13	3	3
OR				
13 (b)	Evaluate the real-world examples of successful FMEA implementation in different industries.	13	3	3
14 (a)	How does QFD help in translating customer requirements into product design and development? Provide examples.	13	4	4
OR				
14 (b)	Analyze the steps involved in the BPR process and their impact on organizational performance.	13	4	4
15 (a)	Illustrate the key benefits of ISO certification for businesses in different industries.	13	5	4
OR				
15 (b)	How does ISO 14001 contribute to sustainable development and corporate social responsibility?	13	5	4

PART- C(1x 15=15Marks)
(Q.No.16 is compulsory)

Q.No.	Questions	Marks	CO	BL
16.	A hospital wants to improve patient safety and reduce errors in medication storage. How can 5S be applied to ensure better organization?	16	2	5

